

Mineral Industry Surveys

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SULFUR IN JANUARY 2006

During the month, production of recovered elemental sulfur was 671,000 metric tons, according to the U.S. Geological Survey. January 2006 production was 5% lower than that of December 2005 and 10% lower than that of January 2005. Shipments were 7% lower than those of December 2005. Producers' ending stocks for January 2006 were 166,000 tons.

Lower than normal sulfur production resulted from at least two factors. Sulfur production at petroleum refineries had not recovered to the level experienced before two major hurricanes struck the Gulf Coast in August and September. Acid gas reinjection at a large natural gas operation in Wyoming reduced sulfur production from that source by about 25%. Production from refineries is expected to increase, but recovery from natural gas operations is not predicted to increase significantly.

Import and export data for January 2006 were not available at the time of publication and will be published in the Sulfur in February 2006 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for December 2005 were estimated to be 261,000 tons; exports were 87,000 tons. Imports of sulfuric acid for December 2005 were 229,000 tons; exports were 37,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2004	7,390	1,990	9,380	9,410	XX
2005:					
January	573	169	742	742	179
February	546	156	702	694	187
March	584	169	753	754 ^r	183
April	597	157	754	755	168
May	620	159	780	768	177
June	618	158	775	772	178
July	619	153	772	772	175
August	647	163	810	812	175
September	486	141	627	631	165
October	475	136	611	611	158
November	551	129	679	668	172
December	584	120 ^r	705 ^r	712 ^r	160
Total	6,900	1,810 ^r	8,710 ^r	8,690 ^r	XX
2006:					
January ^p	559	113	671	661	166

^pPreliminary. ^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2004:						
January-December	2,010	31,300	545	28,200	2,850	76,800
December	160	2,660	55	2,200	226	5,400
2005:						
January	145	2,070	31	1,070	239	4,730
February	130	2,130	50	1,930	230	6,080
March	145	2,320	40	1,640	185	4,050
April	165	2,530	47	1,840	249	5,830
May	170	1,890	40	1,570	251	5,140
June	165	2,460	40	1,780	235	5,670
July	170	2,650	40	1,490	218	5,610
August	170	2,820	20	808	221	5,040
September	160	3,020	39	1,600	241	6,360
October	185	3,570	44	1,900	227	7,770
November	180	3,680	29	1,130	233	5,710
December	185	4,360	34	1,890	261	8,500
Total	1,970	33,500	454	18,600	2,790	70,500

^eEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2004:									
January-December	1,920	628	72,500	206	67	6,670	2,390	780	86,300
December	140	46	4,970	30	10	655	251	82	7,510
2005:									
January	173	57	5,990	30	10	840	248	81	9,490
February	174	57	6,190	(4)	(4)	18	213	70	7,820
March	183	60	7,080	32	10	759	254	83	8,590
April	191	63	7,770	10	3	629	250	82	9,660
May	158	52	6,370	--	--	--	192	63	7,080
June	144	47	5,360	--	--	--	189	62	6,380
July	168	55	6,840	(4)	(4)	5	213	70	7,790
August	156	51	6,490	(4)	(4)	83	196	64	9,150
September	169	55	6,890	11	4	198	241	79	8,260
October	178	58	7,880	6	2	149	253	83	11,600
November	138	45	5,910	5	2	188	181	59	6,820
December	172	56	7,910	10	3	435	229	75	9,640
Total	1,870	611	74,800	104	33	3,300	2,660	871	102,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2004:					
January-December	949	63,300	204	67	21,300
December	130	8,740	13	4	1,120
2005:					
January	22	1,740	13	4	1,590
February	72	5,040	28	9	2,230
March	41	6,270	31	10	2,270
April	94	6,010	51	17	3,280
May	16	1,850	26	8	2,560
June	56	5,920	38	12	3,630
July	64	4,520	24	8	1,920
August	71	5,330	25	8	2,600
September	42	3,470	26	8	2,810
October	104	7,070	32	10	3,020
November	14	2,940	7	2	992
December	87	5,790	37	12	2,560
Total	579	48,900	306	99	26,500

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^c	Consumption
2004:			
January-December	8,470	2,850	11,300
December	716	226	942
2005:			
January	720	239	959
February	622	230	852
March	713 ^r	185	898 ^r
April	661	249	910
May	752	251	1,000
June	716	235	951
July	708	218	926
August	741	221	962
September	589	241	830
October	507	227	719
November	654	233	887
December	625	261	886
Total	8,010	2,790	10,800

^cEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT

(Thousand metric tons)

District and source	January 2006 ^p		December 2005		January 2005	
	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:						
Petroleum and coke	15	15	15	16	23	22 ^r
Natural gas	1	1	2	1	2	2
Total	17	17	17	17	25	24 ^r
PAD 2:						
Petroleum and coke	73	74	75	76	88 ^r	88 ^r
Natural gas	3	4	3	3	3	3
Total	76	77	78	79	91 ^r	92 ^r
PAD 3: ¹						
Petroleum and coke	356	345	375	386	345 ^r	343 ^r
Natural gas	33	35	38	35	44	48 ^r
Total	390	380	414	420	389 ^r	391 ^r
PAD 4 and 5: ²						
Petroleum and coke	114	108	119	118	117	114 ^r
Natural gas	75	78	77 ^r	78 ^r	120 ^r	122 ^r
California	91	87	98	97	89	86
Total	189	187	196 ^r	196 ^r	237 ^r	236 ^r
Grand total	671	661	705 ^r	712 ^r	742 ^r	742 ^r

^pPreliminary. ^rRevised.

¹Includes the U.S. Virgin Islands.

²Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis]
and dollars per metric ton for period shown)

	2006	2005		
	January	December	November	Total
Production	7.90 ^p	8.30 ^r	8.26	8.71
Shipments	7.78 ^p	8.38 ^r	8.13 ^r	8.69
Exports of sulfur	NA	1.02	0.17	0.58
Imports of sulfur:				
Canada	NA	2.18 ^e	2.19 ^e	1.97 ^e
Mexico	NA	0.40	0.35	0.45
Total ²	NA	3.07 ^e	2.83 ^e	2.79 ^e
Export of H ₂ SO ₄	NA	0.44	0.08	0.31
Import of H ₂ SO ₄ :				
Canada	NA	2.03	1.68	1.87
Europe	NA	0.12	0.06	0.10
Total ²	NA	2.70	2.20	2.66
Consumption: ³				
Domestic sources	NA	7.36	7.96	7.96
Imports	NA	3.07 ^e	2.83 ^e	2.79 ^e
Total	NA	10.43	10.79	10.75
Sulfur export values ⁴	NA	\$67	\$210	\$84
Sulfur import values: ⁴				
Canada	NA	\$24	\$20	\$17
Mexico	NA	\$56	\$39	\$41
Average	NA	\$33	\$24	\$25
H ₂ SO ₄ export values ⁴	NA	\$69	\$142	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$46	\$43	\$40
Europe	NA	\$44	\$38	\$32
Average	NA	\$42	\$38	\$38

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because January trade data were not available, January consumption was not determined.

⁴Average value per ton for most recent data available.